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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,056	02/13/2001	Christian Biermann	AN05980PIUS/	6988

7590 12/04/2001

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EXAMINER

GORR, RACHEL F

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 12/04/2001

Please find below and/or attached an Office communication concerning this application or proceeding:

1-D-7

Office Action Summary

Application No.

09/720,056

Applicant(s)

BIERMANN ET AL.

Examiner

Rachel Gorr

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.

- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 1711

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schurmann (127).

3. Schurmann discloses the process and product produced by reacting a diisocyanate with a triol (top col. 4) and a diol having a pendant group with at least ten carbon atoms (example 1 shows glycerinmonostearate). He then chain extends this with an anionic group containing diol (see example 1). He disperses this polyurethane in water and uses it for sizing paper (col. 5, lines 37-40). In col. 3, lines 25-27, he discloses that the stearyl component can comprise a tertiary amine group, which would act as a cationic group in the presence of the acid containing chain extender. He differs from the claims by not requiring the presence of the triol. He differs from claims 5 and 6 by not requiring a tertiary amine component.

4. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the triol component because Schurmann teaches this for providing for some cross-linking, which would make a stiffer, more rigid polymer for those applications in which this property is desired. It would have been obvious to include the amine containing component because an amphoteric sizing would enable a paper to absorb both acid and basic printing inks.

5. Claims 1, 2, 5, 7-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schurmann (764).


6. Schurmann discloses the process and product from the process in which a diisocyanate is reacted with a diol comprising a side chain comprising at least ten carbons (see example 1) and then chain extending with a dialkanolamine (example 1). He disperses the polyurethane in water and uses the dispersion for sizing paper (top col. 10). At the bottom of col. 3, he discloses that the diisocyanate can be reacted with a triol. Schurmann differs from the claims by not requiring the presence of the triol.

7. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the triol in the urethane of Schurmann for those applications in which a crosslinked, stiffer urethane is desired.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachel Gorr whose telephone number is (703) 308-3608. The examiner can normally be reached on Mon.-Fri., from 7:30-6:00.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Seidleck can be reached on (703) 308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

10. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


RACHEL GORR
PRIMARY EXAMINER